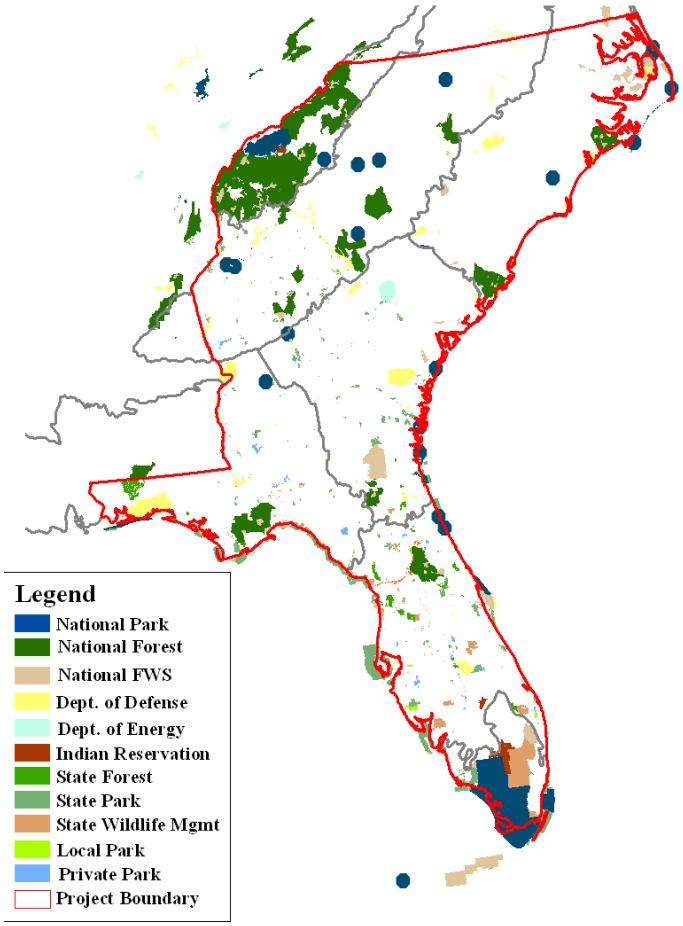
National Park Service
U.S. Department of the Interior

Natural Resource Program Center
Biological Resource Management Division

Seamless Network of Parks for the Southeastern US

A cooperative project between the National Park Service and NatureServe



Left: Seamless Network Project Area with potential network land units. Above: purple fringed orchard (*Platanthera psycodes*), *tree snail (Liguus fasciatur castaneozonatus*), and Anhinga (*Anhinga anhinga*)

It is a challenge for park managers to effectively manage resources when they extend across complex ownership and management boundaries. But what if managers of nearby parks and other conservation lands – from federal, to state, to local governments, to private conservation organizations - could find the resource linkages, and seamlessly manage these resources across the landscape? This vision sparked a pilot cooperative project between the National Park Service (NPS) and NatureServe to explore how we could foster a Seamless Network of Parks in the Southeastern U.S.

The objective of the Seamless Network of Parks Project is to develop a landscape context for managing National Parks and to facilitate partnerships with other land managers. Landscape context in this case refers to the spatial setting of parks, and the connectivity of resources between parks and other conservation lands. Recently, there have been a number of important landscape assessments in southern states. This project seeks to work with these efforts and build upon them to improve cooperative conservation and management. The project will focus upon three themes: *Biodiversity Management, Recreation, and Invasive Species Control.* It will bring together available information on native species and biological communities, as key resources and attractions to parks; conservation-compatible recreation, such as bird- watching and fishing; and threats to resources and recreation caused by invasive species.

BIODIVERSITY MANAGEMENT

Among their roles as places of natural and cultural resource preservation, the National Parks are critical storehouses of our biological heritage. It is important that NPS managers understand the value of their parks as either harbors of unique resources, or as part of a larger landscape of protected areas. When properly managed, these landscapes can allow natural processes to act within their historic patterns. NPS strives to maintain natural processes such as fire, flooding, and predators so that they can continue to influence species as they have for thousands of years. Park managers, however, normally have only limited representation of a species in their park. Any decision to allow large scale processes to act on lands that harbor only one or two populations of a rare species will be greatly facilitated by a deeper understanding of the status and management of other populations in the surrounding landscape.

Alligators (*Alligator mississippiensis*) such as those found in Everglades National Park have been the focus of numerous conservation efforts (photo by Loyal Mehrhoff

By knowing who else is managing a common resource and how they are managing it, park managers can more effectively apply management tools. In this project, we will gather all relevant data sources on terrestrial, freshwater, and marine biodiversity within the project region. This will include species and community data from NatureServe and its Natural Heritage Network, the NPS Inventory and Monitoring program, state fish and game agencies, existing ecoregional analyses, and partner contacts. Over time, NPS can use its Inventory and Monitoring networks to maintain and build on these data sets.

RECREATION

Bird watching at Great Smoky Mountains National Park (photo by Carol Beidleman)

The National Park Service encourages people to "Experience your America". NPS Director Fran Mainella first proposed a seamless network of federal, state, and local parks to make it easier for Americans to enjoy their public lands. In keeping with the Director's vision, this project seeks to enhance outdoor recreational opportunities. We feel strongly that providing compatible outdoor recreation is a core mission of the NPS. In addition, it represents an exceptional opportunity for parks to build support for resource management efforts.

We will use information generated by this project to support the development of materials for recreational activities such as

- seasonal migratory bird, wildflower bloom and leaf change tours;
- hunting and fishing opportunities;
- paddling, hiking and road cycling networks;
- points of interest.

INVASIVE SPECIES CONTROL

The Appalachian Trail is included in our pilot landscape context project. It has guided thousands of hikers through a patchwork of land ownership and management types. We hope to build on this successful model to truly create a functioning seamless network of parks.

After degradation or loss of habitat, invasive species are the greatest threat to biodiversity. Given that NPS lands already benefit from legal protection, invasive species are the most critical threat to the long term survival of native plants and animals. Invasive species not only cause the loss of biodiversity, but can also reduce hiking, bird watching, fishing, and other recreational opportunities.
Regional rankings of invasive plants are only just being developed. The Seamless Network Project will contribute to that effort by attempting to identify emergent properties of invasive species distributions at the landscape scale. This

Kudzu (*Pueraria montana)* outcompetes native vegetation by vining over forbes, shrubs and evergreen trees shading them (photo by Jerry Asher)

information will then be used to work with local managers and existing invasive species networks, such as Exotic Pest Plant Councils, to develop strategies that identify threats and propose solutions for invasive species, including plant, invertebrate and microbial species, and the factors that lead to the spread of these species.

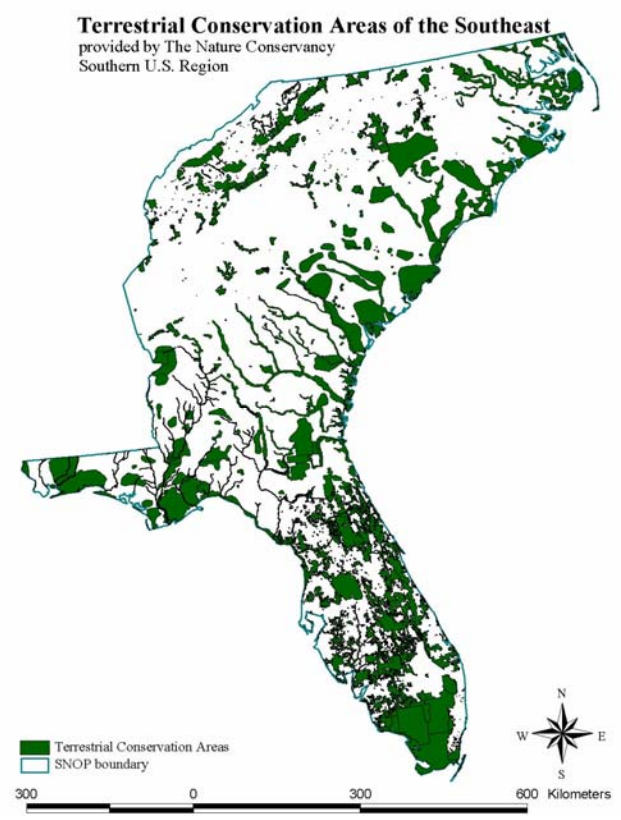
PROJECT DEVELOPMENT

NPS is cooperating with NatureServe. NatureServe and its network of natural heritage programs are the leading source for information about rare and endangered species and threatened ecosystems.

The project will:

(1) Locate and develop comprehensive maps and data layers of biodiversity, invasive species, and recreational opportunities;
(2) Identify landscape partnership opportunities for NPS and other land managers; and
(3) Recommend cooperative landscape strategies for NPS and other land managers to better protect native species, control invasive species, and enhance outdoor recreational opportunities.
(4) Apply these strategies both within and across state and ecoregional boundaries.

Status: The NPS partnership with NatureServe has been funded. The current focus of the project is on Florida, Georgia, North and South Carolina and eastern Tennessee. They have a mix of large natural area parks (Everglades National Park, Great Smoky Mountains National Park and smaller historic sites (Carl Sandburg Home, Kennesaw Mountain), plus a broad spectrum of biological resources. If this pilot project proves effective, additional projects will be undertaken throughout the nation.



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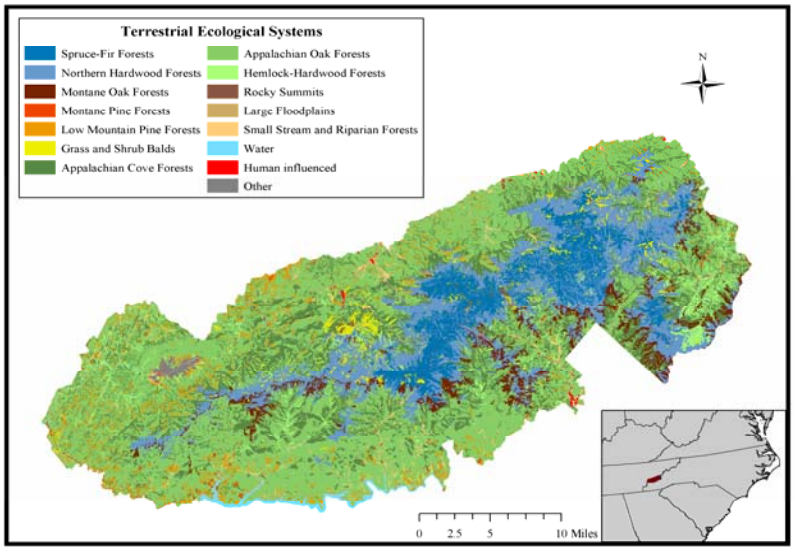

Ecological Systems of Great Smoky Mountain National Park

Everglades National Park

NatureServe

NATIONAL PARK SERVICE

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